

the general color is "reddish brown inclining to dullness." I have raised about five hundred Lunas, and to my knowledge no larva spun its cocoon without turning dull reddish brown some time before. The moths sometimes fly to a lamp. I have never been able to attract many by exposing a female; the largest number that I have attracted in one night is nine.

*Callosamia Promethea*. Larva eats *button bush*, cherry, saffras, spice bush, apple, ash, lilac. It is a curious fact that the males fly only during the afternoon, from about three to six o'clock. They often come in large numbers to a fresh female. I never saw a female flying by day; I think they fly by night only. Cocoons may be found often in large numbers, hanging on *button bush*, by river banks, in winter. I have often found hundreds thus in one day.

*Platysamia Cecropia*. Larva feeds upon *button bush*, apple, wild cherry, ash, barberry, blue-berry, birch, oak, hazel, maple, elder-berry, alder, jersey tree, buck thorn. Males often come in large numbers to a fresh female. I have taken forty-three in one evening. Males vary very much in color. I have one of a bright orange color, which came to a female. *R. Thaxter*.

## BIBLIOGRAPHICAL RECORD.

Authors and Societies are requested to forward their works to the Editor at the earliest date possible. We ask our readers to inform us of the publication especially of those works which are not generally consulted by entomologists.

*B. Pickman Mann.*

(Continued from page 192.)

Nos. 585 to 589 are from the **Proc. Amer. Assoc. Advanc. Sci.**, vol. xxiv, part ii.

\* 585. C. V. RILEY. The Locust Plague; How to avert it. p. 215-222.

Ravages committed by *Caloptenus spretus* in the Western United States, in 1873, 1874 and 1875; natural agencies and artificial means to be employed in the destruction of the eggs and unfledged young (the winged insects being uncontrollable); importance of governmental assistance towards the investigation and adoption of further means of prevention.

\* 586. A. R. GROTE. The Effect of the Glacial Epoch upon the Distribution of Insects in North America. p. 222-226.

[Same as the article cited in Rec., No. 507, slightly amended.]

\* 587. A. R. GROTE and ADOLPH KAYSER. Are Potato-bugs Poisonous? p. 226-228.

Statement of experiments with liquid matters and with tinctures obtained from *Doryphora 10-lineata*, tending to show that the insects are not generally poisonous.

\* 588. G. DIMMOCK. A Method of Bleaching Wings of Lepidoptera to facilitate the Study of their Venation. p. 228-230.

[Essentially the same as the article in PSYCHE, vol. i, p. 97-99.]

\* 589. CHARLES H. ALLEN. Demonstration of Locomotion in the larvæ of the Cestridæ. p. 230-236.

Statement of a case in which larvæ of probably *Hypoderma bovis* moved respectively one, six and thirty inches under the skin of a boy; notes on other larvæ of Oestridæ.

\* 590. The **Memoirs of the American Association for the Advancement of Science**. I. Salem, Mass. F. W. Putnam, Permanent Secretary, A. A. A. S. 1875. 4to. consist of the following and No. 591.

Title; Letter of Gift [of the Thompson Fund]; Report of the Special Committee on the Thompson Fund, Hartford Meeting, August, 1874, p. i-iv.

\* 591. S. H. SCUDDER. Fossil Butterflies. pp. v-xi, 1-99, fig. 1-8, with three plates (i-iii) containing 54 figures.

Title, Dedication, Contents, Introductory, p. v-xi. Says: "In the hope of drawing attention to fossil butterflies, \* \* \*, I have brought together in this connection all that has been published of this group of fossils, whether of text or illustration." Bibliography [cites 41 titles, stating the subject treated of under each], p. 1-7. Motto [by Heer], p. 8. Descriptive [treats of *Neorinopsis*, *N. sepulta*, *Lethites*!, *L. Reynesii*, *Eugonia*, *E. atara*, *Mylothrites*!, *M. Pluto*, *Coliates*!, *C. Proserpina*, *Pontia*, *P. Freyeri*, *Thaites*, *Th. Ruminiana*, *Thanatites*!, *Th. vetula*, *Pamphilites*!, *P. abilita*! = 9 (5 new) gen., 9 (2 new) spp. of fossils; figures *Eugonia j-album*, *Zophoessa Sura*, *Delias Pasühog*, *Lethe Dyrta*, *Neorina Lowii*, *Debis Sinorix*, *Pontia Protodice*, *P. Freyeri*, *Thais Rumina*, *Parnassius Snintheus*, *Thanaos Juvenalis*, *Carystus Lucasii*, *Pansylia Mesogramma*, for comparison], p. 9-69, fig. 1, pl. i-iii. Comparative Age of Fossil Butterflies, p. 70-71. Probable Food-Plants of Tertiary Caterpillars, p. 71-76. Present Distribution of Butterflies most nearly allied to Fossil Species, p. 76-83. General Résumé, with Notices of Undetermined Forms, p. 83-88. Notice of Insects which have been erroneously referred in recent times to Butterflies [treats of *Cyllnium Boisduvalianum*, *C. Hewitsonianum*, *Palaeontina oolitica*], p. 88-95, fig. 2-8. Explanation of the Plates, p. 97-98. List of Wood-cuts; Errata, p. 99.

\* 592. The **Proceedings of the Davenport Academy of Natural Sciences**, vol. i, contain the following, and Nos. 593 to 605.

a. Habits of *Amphicerus bicaudatus*, which bores in canes of the grape-vine (by J. D. Putnam), p. 36. b. Explanation of Plates xxxv and xxxvi, p. 267.

\* 593. J. DUNCAN PUTNAM. The Maple Bark Louse (*Lecanium acericola* W. & R.). p. 37-38.

Habits of *Lecanium acericola*; its enemies.

\* 594. J. D. PUTNAM. List of Coleoptera found in the vicinity of Davenport, Iowa. p. 169-173.

Enumerates about 225 species.

\* 595. J. D. PUTNAM. Coleoptera collected at Monticello, Iowa, June 12th, 1872. p. 173.

Enumerates 37 species.

\* 596. J. D. PUTNAM. Coleoptera collected near Fred-eric, Monroe Co., Iowa, August, 1869. p. 173.

Enumerates 19 species.

\* 597. J. D. PUTNAM. List of Lepidoptera collected in the vicinity of Davenport, Iowa. p. 174-177.

Enumerates 39 Rhopalocera, 10 Sphingidae, 21 Zygaenidae and Bombycidae; notes on abundance.

\* 598. J. D. PUTNAM. List of Coleoptera collected in the Rocky Mountains of Colorado, in 1872. p. 177-182.

Enumerates 250 species.

\* 599. J. D. PUTNAM. List of Lepidoptera collected in Colorado during the summer of 1872. p. 182-187 [see also p. 267], pl. xxxv, fig. 5.

Enumerates 47 (8 doubtful or unnamed) Rhopalocera, 13 or 14 (6 or 7 unnamed) Sphingidae, Aegeriadae, Zygaenidae and Bombycidae; notes on abundance, habitat and seasons. Figure of *Papilio indra* ♀.

\* 600. J. D. PUTNAM. Report on the Insects collected by Captain Jones' Expedition to Northwestern Wyoming in 1873. p. 187-192.

[See Rec., Nos. 562-563.] General introductory remarks; finding of scorpions, Orthoptera and flies. **Hymenoptera**: about 30 (13 identified) species, with localities. **Lepidoptera**: about 12 species, with localities and dates of capture. **Coleoptera**: 45 species from Fort Bridger, May and June; 40 species from Stinkingwater River, July; 21 species from Yellowstone National Park, August; in all 96 species. **Neuroptera**: 10 species. **Indian Names for Insects**: 19 Shoshone or Snake names

for designated insects [and one for the Horned Toad (*Phrynosoma*)]; 9 names for colors.

\* 601. J. D. PUTNAM. Report on the Insects collected in the vicinity of Spring Lake Villa, Utah Co., Utah, during the Summer of 1875. p. 193-207 [see also p. 267].

Introductory remarks. **Hymenoptera**: about 70 (50 identified) species. **Lepidoptera**: 32 (29 identified) Rhopalocera; 6 or 7 Sphingidae, Zygaenidae, Bombycidae and Noctuidae; notes on abundance, localities and dates of capture; congregation of individuals on mountain peaks. **Coleoptera**: 52, 38 and 105 identified species from three regions, respectively, making in all 169 species, besides several not identified; *Dyschirius salivagans* and *Tamarthrus salicola*, described by LeConte [see Rec., No. 605], as coming from Great Salt Lake, and credited to Mr. Ulke, were collected by Mr. Putnam, at Utah Lake. **Neuroptera**: 19 (13 identified) species, 12 of which are new to the fauna of Utah; localities and dates of collection; notes by Dr. Hagen.

\* 602. E. T. CRESSON. List of Hymenoptera, collected by J. Duncan Putnam, of Davenport, Iowa, with Descriptions of two New Species. p. 206-211, pl. xxxv, fig. 1, 2.

Enumerates 145 species, from Colorado, Wyoming, Utah and Iowa, with localities of each; describes and figures *Nomada Putnami*, *Anthophora albata* = 2 n. spp.

\* 603. DR. CYRUS THOMAS. A List of Orthoptera, collected by J. Duncan Putnam, of Davenport, Iowa, during the Summers of 1872-3, 4 & 5, chiefly in Colorado, Utah and Wyoming Territories. p. 249-264, pl. xxxvi.

Enumerates 51 (45 determined) species from Colorado, Utah, Wyoming, Iowa and California; describes and figures *Ischnoptera bivittata* ♂ ♀, *Psolossa? coloradensis* ♂ ♀, *Trimerotropis fontana*, *Cratypedes Putnamii*, *Ceuthophilus utahensis* = 5 n. spp.; partially re-describes *Circotettix undulata* and *C. carlingiana*, *Mestobregma kiowa*, *Pezotettix obesa*, *P. Dodgei*; figures *Cyphoderris monstrosus*; notes on generic and specific characters. [See Rec., No. 604.]

\* 604. J. D. PUTNAM. Notes. p. 265-267, pl. xxxvi, fig. 1, 2.

Notes on 10 of the species included in Dr. Thomas' List [see Rec., No. 603], especially on habits of *Caloptenus spretus* and *Anabrus simplex*; enumeration of 5 species omitted from that List; important corrections to be made in that List.

\* 605. J. L. LECONTE. Descriptions of Coleoptera. p. 268, pl. xxxv, fig. 3, 4.

Reprint, with corrections and additions, of the descriptions of, and notes

upon, *Dyschirius salivagans* and *Tanarthrus salicola*, in Trans. Amer. Entom. Soc., v, pp. 169, 174; figures of the two species.

\* 606. **J. D. PUTNAM.** Entomological Contributions from the Proceedings of the Davenport Academy of Natural Sciences, Vol. I.— Being some account of the collections of insects made by J. Duncan Putnam, among the Rocky Mountains in Colorado, Wyoming and Utah, during the years 1872, —'73, —'74, —'75; and in Iowa from 1869 to 1875.— With Two Plates.— Davenport, Iowa, September, 1876. 8vo. pp. 169–211, 249–268, with two plates (xxxv, xxxvi).

Reprint of Nos. 594–605 of this Record, in separate binding.

\* 607. The **Proc. Amer. Philos. Soc.** [see Rec., Nos. 64–65], vol. xiv, from p. 177 [= Nos. 93–95], contain the following, and No. 608. (Vol. xv [= No. 96] will consist of LeConte and Horn's Memoir, referred to below; vol. xvi, as far as p. 276 [= No. 97], contains nothing entomological.)

Report of the Committee to which was referred the Memoir on the Rhynchophora of N. America, by Drs. LeConte and Horn, pp. 649, 662–663.

\* 608. **A. R. GROTE.** List of the North American Platypterices, Attaci, Hemileucini, Ceratocampadæ, Lachneides, Terebines and Hepiali, with notes. p. 256–264.—Also separate. 8vo. pg. 9.

Enumerates 67 species, belonging to 29 genera, with synonymy and indication of the (7) genera represented in Europe.

**The Annals and Mag. Nat. Hist.** [see Rec., Nos. 73–75], ser. 4, vols. xiv–xvii, contain Nos. 609 to 619.

\* 609. **R. MELDOLA.** Note on *Iphioides Ajax*. xiv, p. 239–240.

Why do not the forms of *I. Ajax* conform strictly to the law of substance waste? [See Rec., Nos. 4, 73a.]

\* 610. **A. G. BUTLER.** Descriptions of new Species of *Sesia* in the Collection of the British Museum. xiv, p. 365–367.

Describes *Sesia Grotei* n. sp. from Texas and two new species from Japan.

\* 611. **ANTON STUXBERG.** Descriptions of some new North-American Lithobioidæ. xv, p. 188–192.

Describes *Lithobius monticola*, *L. pusio*, *L. paradoxus*, *L. obesus*, *L. Kochii*, *L. megaloporus*, *L. eucnemis*, *L. Saussurei* = 8 n. spp. from California and Mexico.

\* 612. A. G. BUTLER. On some new Species of Butterflies from Tropical America. xv, p. 222-225.

Describes *Antirrhæa tomasia*, *Paphia Ada*, *Heliconius clarescens*, *Daptonura florinda* and var? *monstrosa* = 4 or 5 n. spp. from Veragua; describes 3 n. spp. from South America.

\* 613. A. G. BUTLER. Descriptions of new Species of Lepidoptera from Central America. xv, p. 338-342.

Describes *Morpho polybaptus*, *Belemnia Jovis*, *Pericopsis Lucretia*, *Josia cruciata*, *Ruscino latifasciatus*, *Scordylia Salvini*, *Atteria rivularis* = 7 n. spp.; list of four additional species collected.

\* 614. A. M. MAYER. Experiments on the supposed Auditory Apparatus of the *Culex mosquito*. xv, p. 349-364.

[Reprint, from the \* Philos. Mag., ser. 4, vol. xlviii (see Rec., No. 640), of the article cited in Rec., No. 189. This lacks the author's corrections as given in the reprint, Rec., No. 281, and is not an exact reproduction of the original. (In the reprint, Rec., No. 281, the figure is inverted.)]

\* 615. A. G. BUTLER. Descriptions of new Genera and Species of Lepidoptera in the Collection of the British Museum. xv, p. 396-400.

Describes *Sphaenogona semiflava* n. sp. from Trinidad and 7 n. spp. from localities not N. American, unless *Acridura gryllina*, *A. metallica*, *Hyalœucerea vulnerata* = 3 n. spp. from the highly indefinite locality "Espiritu Santo" are N. American. Describes *Mimensemia* (n. g. Agaristidae), *Acridura*, *Hyalœucerea*, *Thysanopyrmyna* (= 3 n. gen. Arctiidae, Zygænoïd type) = 4 n. gen.

\* 616. DR. [H.] LOEW. On Androgynous Diptera. xvi, p. 79.

Notice of a hitherto partially overlooked published case of androgynism in *Beris nitens*, and of a new case in *Synarthrus cinereiventris*, the latter from Texas.

\* 617. A. G. BUTLER. Revision of the Subfamily *Pericopiinae* of the Lepidopterous Family *Arctiidae*, with Descriptions of new Species. xvi, p. 163-177.

["All the Pericopiinae are from the New World."] Enumerates 102 (16 N. A.) species of 8 (5 N. A.) genera, with localities and some descriptive or classificatory notes; describes 6 (*Phaloësia chalybea* from Vera Cruz = 1 N. A.) new species.